```
                                                        ENTRY     SESSION
FULL ESTIMATED COST                                      0.21        0.21

FILE 'AGRICOLA' ENTERED AT 09:02:12 ON 23 SEP 2005

FILE 'BIOTECHNO' ENTERED AT 09:02:12 ON 23 SEP 2005
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=> (CAG repeat or polyglutamine) and diameter and filament
L1             0 FILE AGRICOLA
L2             0 FILE BIOTECHNO
L3             0 FILE CONFSCI
L4             0 FILE HEALSAFE
L5             0 FILE IMSDRUGCONF
L6             0 FILE LIFESCI
L7             0 FILE PASCAL

TOTAL FOR ALL FILES
L8             0 (CAG REPEAT OR POLYGLUTAMINE) AND DIAMETER AND FILAMENT

=>  polyglutamine and diameter and filament
L9             0 FILE AGRICOLA
L10            0 FILE BIOTECHNO
L11            0 FILE CONFSCI
L12            0 FILE HEALSAFE
L13            0 FILE IMSDRUGCONF
L14            0 FILE LIFESCI
L15            0 FILE PASCAL

TOTAL FOR ALL FILES
L16            0 POLYGLUTAMINE AND DIAMETER AND FILAMENT

=> polyglutamine and (aggregate or aggregation) and filament
L17            0 FILE AGRICOLA
L18            5 FILE BIOTECHNO
L19            0 FILE CONFSCI
L20            0 FILE HEALSAFE
L21            0 FILE IMSDRUGCONF
L22            3 FILE LIFESCI
L23            3 FILE PASCAL

TOTAL FOR ALL FILES
L24           11 POLYGLUTAMINE AND (AGGREGATE OR AGGREGATION) AND FILAMENT
```

```
=> l24 and diameter
L25           0 FILE AGRICOLA
L26           0 FILE BIOTECHNO
L27           0 FILE CONFSCI
L28           0 FILE HEALSAFE
L29           0 FILE IMSDRUGCONF
L30           0 FILE LIFESCI
L31           0 FILE PASCAL

TOTAL FOR ALL FILES
L32           0 L24 AND DIAMETER

=> l24 and length
L33           0 FILE AGRICOLA
L34           3 FILE BIOTECHNO
L35           0 FILE CONFSCI
L36           0 FILE HEALSAFE
L37           0 FILE IMSDRUGCONF
L38           1 FILE LIFESCI
L39           1 FILE PASCAL

TOTAL FOR ALL FILES
L40           5 L24 AND LENGTH

=> dup rem
ENTER L# LIST OR (END):l40
DUPLICATE IS NOT AVAILABLE IN 'IMSDRUGCONF'.
ANSWERS FROM THESE FILES WILL BE CONSIDERED UNIQUE
PROCESSING COMPLETED FOR L40
L41            4 DUP REM L40 (1 DUPLICATE REMOVED)

=> d l41 ibib abs total

L41  ANSWER 1 OF 4  LIFESCI    COPYRIGHT 2005 CSA on STN
ACCESSION NUMBER:   2003:45445  LIFESCI
TITLE:              Amyloid-like Features of Polyglutamine
                    Aggregates and Their Assembly Kinetics
AUTHOR:             Chen, Songming; Berthelier, V.; Hamilton, J.B.; O'Nuallain,
                    B.; Wetzel, R.
CORPORATE SOURCE:   Graduate School of Medicine, University of Tennessee
                    Medical Center, 1924 Alcoa Highway, Knoxville, TN 37920,
                    USA
SOURCE:             Biochemistry (Washington) [Biochemistry (Wash.)], (20020611
     )              vol. 41, no. 23, pp. 7391-7399.
                    ISSN: 0006-2960.
DOCUMENT TYPE:      Journal
FILE SEGMENT:       N3
LANGUAGE:           English
SUMMARY LANGUAGE:   English
AB   The repeat length-dependent tendency of the
     polyglutamine sequences of certain proteins to form
     aggregates may underlie the cytotoxicity of these sequences in
     expanded CAG repeat diseases such as Huntington's disease. We report here
     a number of features of various polyglutamine (polyGln)
     aggregates and their assembly pathways that bear a resemblance to
     generally recognized defining features of amyloid fibrils. PolyGln
     aggregation kinetics displays concentration and length
     dependence and a lag phase that can be abbreviated by seeding. PolyGln
     aggregates exhibit classical beta -sheet-rich circular dichroism
     spectra consistent with an amyloid-like substructure. The fundamental
     structural unit of all the in vitro aggregates described here is
     a filament about 3 nm in width, resembling the protofibrillar
```

intermediates in amyloid fibril assembly. We observed these filamentous structures either as isolated threads, as components of ribbonlike sheets, or, rarely, in amyloid-like twisted fibrils. All of the polyGln **aggregates** described here bind thioflavin T and shift its fluorescence spectrum. Although all polyGln **aggregates** tested bind the dye Congo red, only **aggregates** of a relatively long polyGln peptide exhibit Congo red birefringence, and this birefringence is only observed in a small portion of these **aggregates**. Remarkably, a monoclonal antibody with high selectivity for a generic amyloid fibril conformational epitope is capable of binding polyGln **aggregates**. Thus, polyGln **aggregates** exhibit most of the characteristic features of amyloid, but the twisted fibril structure with Congo red birefringence is not the predominant form in the polyGln repeat **length** range studied here. We also find that polyGln peptides exhibit an unusual freezing-dependent **aggregation** that appears to be caused by the freeze concentration of peptide and/or buffer components. This is of both fundamental and practical significance. PolyGln **aggregation** is revealed to be a highly specific process consistent with a significant degree of order in the molecular structure of the product. This ordered structure, or the assembly process leading to it, may be responsible for the cell-specific neuronal degeneration observed in Huntington's and other expanded CAG repeat diseases.

L41 ANSWER 2 OF 4 BIOTECHNO COPYRIGHT 2005 Elsevier Science B.V. on STN
DUPLICATE

ACCESSION NUMBER: 1999:29124713 BIOTECHNO
TITLE: Expanded **polyglutamine** domain proteins bind neurofilament and alter the neurofilament network
AUTHOR: Nagai Y.; Onodera O.; Chun J.; Strittmatter W.J.; Burke J.R.
CORPORATE SOURCE: J.R. Burke, Department of Medicine (Neurology), Deane Laboratory, Duke University Medical Center, Durham, NC 27710, United States.
E-mail: james.burke@duke.edu
SOURCE: Experimental Neurology, (1999), 155/2 (195-203), 50 reference(s)
CODEN: EXNEAC ISSN: 0014-4886
DOCUMENT TYPE: Journal; Article
COUNTRY: United States
LANGUAGE: English
SUMMARY LANGUAGE: English

AN 1999:29124713 BIOTECHNO

AB Eight inherited neurodegenerative diseases are caused by genes with expanded CAG repeats coding for **polyglutamine** domains in the disease- producing proteins. The mechanism by which this expanded **polyglutamine** domain causes neurodegenerative disease is unknown, but nuclear and cytoplasmic **polyglutamine** protein **aggregation** is a common feature. In transfected COS7 cells, expanded **polyglutamine** proteins **aggregate** and disrupt the vimentin intermediate **filament** network. Since neurons have an intermediate **filament** network composed of neurofilament (NF) and NF abnormalities occur in neurodegenerative diseases, we examined whether pathologic-**length polyglutamine** domain proteins also interact with NF. We expressed varying **lengths** **polyglutamine**-green fluorescent protein fusion proteins in a neuroblast cell line, TR1. Pathologic-**length** **polyglutamine**-GFP fusion proteins formed large cytoplasmic **aggregates** surrounded by neurofilament. Immunoisolation of pathologic-**length polyglutamine** proteins coisolated 68- kDa NF protein demonstrating molecular interaction. These observations suggest that **polyglutamine** interaction with NF is important in the pathogenesis of the **polyglutamine** repeat diseases.

L41 ANSWER 3 OF 4 BIOTECHNO COPYRIGHT 2005 Elsevier Science B.V. on STN
ACCESSION NUMBER: 1999:30038076 BIOTECHNO
TITLE: **Polyglutamine** domain proteins with expanded repeats bind neurofilament, altering the neurofilament network
AUTHOR: Nagai Y.; Onodera O.; Strittmatter W.J.; Burke J.R.
CORPORATE SOURCE: J.R. Burke, Department of Medicine, Duke University Medical Center, Durham, NC 27710, United States.
E-mail: james.burke@duke.edu
SOURCE: Annals of the New York Academy of Sciences, (1999), 893/- (192-202), 49 reference(s)
CODEN: ANYAA0 ISSN: 0077-8923
DOCUMENT TYPE: Journal; Conference Article
COUNTRY: United States
LANGUAGE: English
SUMMARY LANGUAGE: English
AN 1999:30038076 BIOTECHNO
AB Proteins with expanded **polyglutamine** (polyQ) repeats cause eight inherited neurodegenerative diseases. Nuclear and cytoplasmic polyQ protein is a common feature of these diseases, but its role in cell death remains debatable. Since the neuronal intermediate **filament** network is composed of neurofilament (NF) and NF abnormalities occur in neurodegenerative diseases, we examined whether pathologic **length** polyQ domain proteins interact with NF. We expressed polyQ-green fluorescent fusion proteins (GFP) in a neuroblast cell line, TR1. Pathologic-**length** polyQ-GFP fusion proteins form large cytoplasmic **aggregates** surrounded by neurofilament. Immunoisolation of pathologic **length** polyQ proteins co-isolated 68 kD NF protein demonstrating molecular interaction. These observations suggest that polyQ interaction with NF is important in the pathogenesis of the **polyglutamine** repeat diseases.

L41 ANSWER 4 OF 4 BIOTECHNO COPYRIGHT 2005 Elsevier Science B.V. on STN
ACCESSION NUMBER: 1997:27464435 BIOTECHNO
TITLE: Oligomerization of expanded-**polyglutamine** domain fluorescent fusion proteins in cultured mammalian cells
AUTHOR: Onodera O.; Burke J.R.; Miller S.E.; Hester S.; Tsuji S.; Roses A.D.; Strittmatter W.J.
CORPORATE SOURCE: W.J. Strittmatter, Department of Medicine (Neurology), Duke University Medical Center, Durham, NC 27710, United States.
E-mail: warren@neuro.duke.edu
SOURCE: Biochemical and Biophysical Research Communications, (1997), 238/2 (599-605), 29 reference(s)
CODEN: BBRCA0 ISSN: 0006-291X
DOCUMENT TYPE: Journal; Article
COUNTRY: United States
LANGUAGE: English
SUMMARY LANGUAGE: English
AN 1997:27464435 BIOTECHNO
AB Six inherited neurologic diseases, including Huntington's disease, result from the expansion of a CAG domain of the disease genes to produce a domain of more than 40 glutamines in the expressed protein. The mechanism by which expansion of this **polyglutamine** domain causes disease is unknown. Recent studies demonstrated oligomerization of **polyglutamine**-domain proteins in mammalian neurons. To study oligomerization of **polyglutamine** proteins and to identify heterologous protein interactions, varying **length** **polyglutamine**-green fluorescent protein fusion proteins were expressed in cultured COS-7 cells. The 19-and 35-glutamine fusion proteins (non-pathologic **length**) distributed diffusely

throughout the cytoplasm. In contrast, 56- and 80-glutamine fusion proteins (pathologic **length**) formed fibrillar arrays resembling those previously observed in neurons in Huntington's disease and in a transgenic mouse model. These **aggregates** were intranuclear and intracytoplasmic. Intracytoplasmic **aggregates** were surrounded by collapsed intermediate **filaments**. The intermediate **filament** protein vimentin co-immunoisolated with expanded **polyglutamine** fusion proteins. This cellular model will expedite investigations into oligomerization of **polyglutamine** proteins and their interactions with other proteins.

```
=>  (CAG repeat) and diameter and filament
L42           0 FILE AGRICOLA
L43           0 FILE BIOTECHNO
L44           0 FILE CONFSCI
L45           0 FILE HEALSAFE
L46           0 FILE IMSDRUGCONF
L47           0 FILE LIFESCI
L48           0 FILE PASCAL

TOTAL FOR ALL FILES
L49           0 (CAG REPEAT) AND DIAMETER AND FILAMENT

=> (CAG repeat) and filament
L50           0 FILE AGRICOLA
L51           2 FILE BIOTECHNO
L52           0 FILE CONFSCI
L53           0 FILE HEALSAFE
L54           0 FILE IMSDRUGCONF
L55           3 FILE LIFESCI
L56           4 FILE PASCAL

TOTAL FOR ALL FILES
L57           9 (CAG REPEAT) AND FILAMENT

=> dup rem
ENTER L# LIST OR (END):157
DUPLICATE IS NOT AVAILABLE IN 'IMSDRUGCONF'.
ANSWERS FROM THESE FILES WILL BE CONSIDERED UNIQUE
PROCESSING COMPLETED FOR L57
L58            8 DUP REM L57 (1 DUPLICATE REMOVED)

=> 158 and length
L59           0 S L58
L60           0 FILE AGRICOLA
L61           2 S L58
L62           1 FILE BIOTECHNO
L63           0 S L58
L64           0 FILE CONFSCI
L65           0 S L58
L66           0 FILE HEALSAFE
L67           0 S L58
L68           0 FILE IMSDRUGCONF
L69           3 S L58
L70           1 FILE LIFESCI
L71           3 S L58
L72           0 FILE PASCAL

TOTAL FOR ALL FILES
L73           2 L58 AND LENGTH

=> d 173 ibib abs total
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L73 ANSWER 1 OF 2 BIOTECHNO COPYRIGHT 2005 Elsevier Science B.V. on STN
ACCESSION NUMBER: 1999:29124713 BIOTECHNO
TITLE: Expanded polyglutamine domain proteins bind neurofilament and alter the neurofilament network
AUTHOR: Nagai Y.; Onodera O.; Chun J.; Strittmatter W.J.; Burke J.R.
CORPORATE SOURCE: J.R. Burke, Department of Medicine (Neurology), Deane Laboratory, Duke University Medical Center, Durham, NC 27710, United States.
E-mail: james.burke@duke.edu
SOURCE: Experimental Neurology, (1999), 155/2 (195-203), 50 reference(s)
CODEN: EXNEAC ISSN: 0014-4886
DOCUMENT TYPE: Journal; Article
COUNTRY: United States
LANGUAGE: English
SUMMARY LANGUAGE: English
AN 1999:29124713 BIOTECHNO
AB Eight inherited neurodegenerative diseases are caused by genes with expanded **CAG repeats** coding for polyglutamine domains in the disease- producing proteins. The mechanism by which this expanded polyglutamine domain causes neurodegenerative disease is unknown, but nuclear and cytoplasmic polyglutamine protein aggregation is a common feature. In transfected COS7 cells, expanded polyglutamine proteins aggregate and disrupt the vimentin intermediate **filament** network. Since neurons have an intermediate **filament** network composed of neurofilament (NF) and NF abnormalities occur in neurodegenerative diseases, we examined whether pathologic-**length** polyglutamine domain proteins also interact with NF. We expressed varying **lengths** polyglutamine-green fluorescent protein fusion proteins in a neuroblast cell line, TR1. Pathologic-**length** polyglutamine-GFP fusion proteins formed large cytoplasmic aggregates surrounded by neurofilament. Immunoisolation of pathologic-**length** polyglutamine proteins coisolated 68- kDa NF protein demonstrating molecular interaction. These observations suggest that polyglutamine interaction with NF is important in the pathogenesis of the polyglutamine repeat diseases.

L73 ANSWER 2 OF 2 LIFESCI COPYRIGHT 2005 CSA on STN
ACCESSION NUMBER: 2003:45445 LIFESCI
TITLE: Amyloid-like Features of Polyglutamine Aggregates and Their Assembly Kinetics
AUTHOR: Chen, Songming; Berthelier, V.; Hamilton, J.B.; O'Nuallain, B.; Wetzel, R.
CORPORATE SOURCE: Graduate School of Medicine, University of Tennessee Medical Center, 1924 Alcoa Highway, Knoxville, TN 37920, USA
SOURCE: Biochemistry (Washington) [Biochemistry (Wash.)], (20020611) vol. 41, no. 23, pp. 7391-7399.
ISSN: 0006-2960.
DOCUMENT TYPE: Journal
FILE SEGMENT: N3
LANGUAGE: English
SUMMARY LANGUAGE: English
AB The repeat **length**-dependent tendency of the polyglutamine sequences of certain proteins to form aggregates may underlie the cytotoxicity of these sequences in expanded **CAG repeat** diseases such as Huntington's disease. We report here a number of features of various polyglutamine (polyGln) aggregates and their assembly pathways that bear a resemblance to generally recognized defining features of amyloid fibrils. PolyGln aggregation kinetics displays concentration and **length** dependence and a lag phase that can be abbreviated by

seeding. PolyGln aggregates exhibit classical beta -sheet-rich circular dichroism spectra consistent with an amyloid-like substructure. The fundamental structural unit of all the in vitro aggregates described here is a **filament** about 3 nm in width, resembling the protofibrillar intermediates in amyloid fibril assembly. We observed these filamentous structures either as isolated threads, as components of ribbonlike sheets, or, rarely, in amyloid-like twisted fibrils. All of the polyGln aggregates described here bind thioflavin T and shift its fluorescence spectrum. Although all polyGln aggregates tested bind the dye Congo red, only aggregates of a relatively long polyGln peptide exhibit Congo red birefringence, and this birefringence is only observed in a small portion of these aggregates. Remarkably, a monoclonal antibody with high selectivity for a generic amyloid fibril conformational epitope is capable of binding polyGln aggregates. Thus, polyGln aggregates exhibit most of the characteristic features of amyloid, but the twisted fibril structure with Congo red birefringence is not the predominant form in the polyGln repeat **length** range studied here. We also find that polyGln peptides exhibit an unusual freezing-dependent aggregation that appears to be caused by the freeze concentration of peptide and/or buffer components. This is of both fundamental and practical significance. PolyGln aggregation is revealed to be a highly specific process consistent with a significant degree of order in the molecular structure of the product. This ordered structure, or the assembly process leading to it, may be responsible for the cell-specific neuronal degeneration observed in Huntington's and other expanded **CAG repeat** diseases.

```
=> l58 and in vitro
L74           0 S L58
L75           0 FILE AGRICOLA
L76           2 S L58
L77           0 FILE BIOTECHNO
L78           0 S L58
L79           0 FILE CONFSCI
L80           0 S L58
L81           0 FILE HEALSAFE
L82           0 S L58
L83           0 FILE IMSDRUGCONF
L84           3 S L58
L85           2 FILE LIFESCI
L86           3 S L58
L87           0 FILE PASCAL

TOTAL FOR ALL FILES
L88           2 L58 AND IN VITRO

=> d 188 ibib abs total

L88  ANSWER 1 OF 2  LIFESCI    COPYRIGHT 2005 CSA on STN
ACCESSION NUMBER:   2005:55642  LIFESCI
TITLE:              Biochemical, Ultrastructural, and Reversibility Studies on
                    Huntingtin Filaments Isolated from Mouse and
                    Human Brain
AUTHOR:             Diaz-Hernandez, Miguel; Moreno-Herrero, Fernando;
                    Gomez-Ramos, Pilar; Moran, Maria A.; Ferrer, Isidro; Baro,
                    Arturo M.; Avila, Jesus; Hernandez, Felix; Lucas, Jose J.
CORPORATE SOURCE:   Centro de Biologia Molecular "Severo Ochoa", Consejo
                    Superior de Investigaciones Cientificas, Laboratorio de
                    Nuevas Microscopias, Departamento de Fisica de la Materia
                    Condensada, and Departamento de Morfologia, Facultad de
                    Medicina, Universidad Autonoma de Madrid, 28029 Madrid,
                    Spain, and Institut de Neuropatologia, Servei d'Anatomia
                    Patologica, Hospital Princeps d'Espanya, Hospitalet de
```

Llobregat, 08907 Barcelona, Spain
SOURCE: Journal of Neuroscience [J. Neurosci.], (20041020) vol. 24, no. 42, pp. 9361-9371.
ISSN: 0270-6474.
DOCUMENT TYPE: Journal
FILE SEGMENT: N3
LANGUAGE: English
SUMMARY LANGUAGE: English
AB Huntington's disease (HD) and eight additional inherited neurological disorders are caused by CAG triplet-repeat expansions leading to expanded polyglutamine-sequences in their respective proteins. These triplet-**CAG repeat** disorders have in common the formation of aberrant intraneuronal proteinaceous inclusions containing the expanded polyglutamine sequences. These aggregates have been postulated to contribute to pathogenesis caused by conformational toxicity, sequestration of other polyglutamine-containing proteins, or by interfering with certain enzymatic activities. Testing these hypotheses has been hampered by the difficulty to isolate these aggregates from brain. Here we report that polyglutamine aggregates can be isolated from the brain of the Tet/HD94 conditional mouse model of HD, by following a method based on high salt buffer homogenization, nonionic detergent extraction, and gradient fractionation. We then verified that the method can be successfully applied to postmortem HD brains. Immunoelectron microscopy, both in human and mouse samples, revealed that the stable component of the inclusions are mutant huntingtin-containing and ubiquitin-containing fibrils. Atomic-force microscopy revealed that these fibrils have a "beads on a string" morphology. Thus, they resemble the in **vitro** assembled **filaments** made of recombinant mutant-huntingtin, as well as the Abeta and alpha-synuclein amyloid protofibrils. Finally, by shutting down transgene expression in the Tet/HD94 conditional mouse model of HD, we were able to demonstrate that these **filaments**, although stable in **vitro**, are susceptible to revert in vivo, thus demonstrating that the previously reported reversal of ubiquitin-immunoreactive inclusions does not simply reflect disassembling of the inclusions into their constituent fibrils and suggesting that any associated conformational or protein-sequestration toxicity is also likely to revert.

L88 ANSWER 2 OF 2 LIFESCI COPYRIGHT 2005 CSA on STN
ACCESSION NUMBER: 2003:45445 LIFESCI
TITLE: Amyloid-like Features of Polyglutamine Aggregates and Their Assembly Kinetics
AUTHOR: Chen, Songming; Berthelier, V.; Hamilton, J.B.; O'Nuallain, B.; Wetzel, R.
CORPORATE SOURCE: Graduate School of Medicine, University of Tennessee Medical Center, 1924 Alcoa Highway, Knoxville, TN 37920, USA
SOURCE: Biochemistry (Washington) [Biochemistry (Wash.)], (20020611) vol. 41, no. 23, pp. 7391-7399.
ISSN: 0006-2960.
DOCUMENT TYPE: Journal
FILE SEGMENT: N3
LANGUAGE: English
SUMMARY LANGUAGE: English
AB The repeat length-dependent tendency of the polyglutamine sequences of certain proteins to form aggregates may underlie the cytotoxicity of these sequences in expanded **CAG repeat** diseases such as Huntington's disease. We report here a number of features of various polyglutamine (polyGln) aggregates and their assembly pathways that bear a resemblance to generally recognized defining features of amyloid fibrils. PolyGln aggregation kinetics displays concentration and length dependence and a lag phase that can be abbreviated by seeding. PolyGln aggregates exhibit classical beta -sheet-rich circular dichroism spectra consistent

with an amyloid-like substructure. The fundamental structural unit of all the in **vitro** aggregates described here is a **filament** about 3 nm in width, resembling the protofibrillar intermediates in amyloid fibril assembly. We observed these filamentous structures either as isolated threads, as components of ribbonlike sheets, or, rarely, in amyloid-like twisted fibrils. All of the polyGln aggregates described here bind thioflavin T and shift its fluorescence spectrum. Although all polyGln aggregates tested bind the dye Congo red, only aggregates of a relatively long polyGln peptide exhibit Congo red birefringence, and this birefringence is only observed in a small portion of these aggregates. Remarkably, a monoclonal antibody with high selectivity for a generic amyloid fibril conformational epitope is capable of binding polyGln aggregates. Thus, polyGln aggregates exhibit most of the characteristic features of amyloid, but the twisted fibril structure with Congo red birefringence is not the predominant form in the polyGln repeat length range studied here. We also find that polyGln peptides exhibit an unusual freezing-dependent aggregation that appears to be caused by the freeze concentration of peptide and/or buffer components. This is of both fundamental and practical significance. PolyGln aggregation is revealed to be a highly specific process consistent with a significant degree of order in the molecular structure of the product. This ordered structure, or the assembly process leading to it, may be responsible for the cell-specific neuronal degeneration observed in Huntington's and other expanded **CAG repeat** diseases.

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	3	(CAG near2 repeat) and diameter and filament	US-PGPUB; USPAT; EPO; DERWENT	OR	OFF	2005/09/23 08:56
L2	15	polyglutamine and diameter and filament	US-PGPUB; USPAT; EPO; DERWENT	OR	OFF	2005/09/23 08:56

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Welcome to STN International!  Enter x:x

LOGINID:ssspta1641cxc

PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2


* * * * * * * * * *   Welcome to STN International   * * * * * * * * * *

 NEWS  1           Web Page URLs for STN Seminar Schedule - N. America
 NEWS  2           "Ask CAS" for self-help around the clock
 NEWS  3  JUL 20   Powerful new interactive analysis and visualization software,
                   STN AnaVist, now available
 NEWS  4  AUG 11   STN AnaVist workshops to be held in North America
 NEWS  5  AUG 30   CA/CAplus -Increased access to 19th century research documents
 NEWS  6  AUG 30   CASREACT - Enhanced with displayable reaction conditions
 NEWS  7  SEP 09   ACD predicted properties enhanced in REGISTRY/ZREGISTRY
 NEWS  8  SEP 22   MATHDI to be removed from STN

 NEWS EXPRESS  JUNE 13 CURRENT WINDOWS VERSION IS V8.0, CURRENT
               MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
               AND CURRENT DISCOVER FILE IS DATED 13 JUNE 2005

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FILE 'HOME' ENTERED AT 09:01:57 ON 23 SEP 2005

=> file .meeting
'EVENTLINE' IS NOT A VALID FILE NAME
Enter "HELP FILE NAMES" at an arrow prompt (=>) for a list of files
that are available.  If you have requested multiple files, you can
specify a corrected file name or you can enter "IGNORE" to continue
accessing the remaining file names entered.
ENTER A FILE NAME OR (IGNORE):ignore
'MEDICONF' IS NOT A VALID FILE NAME
Enter "HELP FILE NAMES" at an arrow prompt (=>) for a list of files
that are available.  If you have requested multiple files, you can
specify a corrected file name or you can enter "IGNORE" to continue
accessing the remaining file names entered.
ENTER A FILE NAME OR (IGNORE):ignore
COST IN U.S. DOLLARS                          SINCE FILE      TOTAL
```

```
                                                        ENTRY    SESSION
FULL ESTIMATED COST                                      0.21       0.21

FILE 'AGRICOLA' ENTERED AT 09:02:12 ON 23 SEP 2005

FILE 'BIOTECHNO' ENTERED AT 09:02:12 ON 23 SEP 2005
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FILE 'CONFSCI' ENTERED AT 09:02:12 ON 23 SEP 2005
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=> (CAG repeat or polyglutamine) and diameter and filament
L1             0 FILE AGRICOLA
L2             0 FILE BIOTECHNO
L3             0 FILE CONFSCI
L4             0 FILE HEALSAFE
L5             0 FILE IMSDRUGCONF
L6             0 FILE LIFESCI
L7             0 FILE PASCAL

TOTAL FOR ALL FILES
L8             0 (CAG REPEAT OR POLYGLUTAMINE) AND DIAMETER AND FILAMENT

=>  polyglutamine and diameter and filament
L9             0 FILE AGRICOLA
L10            0 FILE BIOTECHNO
L11            0 FILE CONFSCI
L12            0 FILE HEALSAFE
L13            0 FILE IMSDRUGCONF
L14            0 FILE LIFESCI
L15            0 FILE PASCAL

TOTAL FOR ALL FILES
L16            0 POLYGLUTAMINE AND DIAMETER AND FILAMENT

=> polyglutamine and (aggregate or aggregation) and filament
L17            0 FILE AGRICOLA
L18            5 FILE BIOTECHNO
L19            0 FILE CONFSCI
L20            0 FILE HEALSAFE
L21            0 FILE IMSDRUGCONF
L22            3 FILE LIFESCI
L23            3 FILE PASCAL

TOTAL FOR ALL FILES
L24           11 POLYGLUTAMINE AND (AGGREGATE OR AGGREGATION) AND FILAMENT
```

```
=> l24 and diameter
L25           0 FILE AGRICOLA
L26           0 FILE BIOTECHNO
L27           0 FILE CONFSCI
L28           0 FILE HEALSAFE
L29           0 FILE IMSDRUGCONF
L30           0 FILE LIFESCI
L31           0 FILE PASCAL

TOTAL FOR ALL FILES
L32           0 L24 AND DIAMETER

=> l24 and length
L33           0 FILE AGRICOLA
L34           3 FILE BIOTECHNO
L35           0 FILE CONFSCI
L36           0 FILE HEALSAFE
L37           0 FILE IMSDRUGCONF
L38           1 FILE LIFESCI
L39           1 FILE PASCAL

TOTAL FOR ALL FILES
L40           5 L24 AND LENGTH

=> dup rem
ENTER L# LIST OR (END):l40
DUPLICATE IS NOT AVAILABLE IN 'IMSDRUGCONF'.
ANSWERS FROM THESE FILES WILL BE CONSIDERED UNIQUE
PROCESSING COMPLETED FOR L40
L41            4 DUP REM L40 (1 DUPLICATE REMOVED)

=> d 141 ibib abs total

L41  ANSWER 1 OF 4  LIFESCI    COPYRIGHT 2005 CSA on STN
ACCESSION NUMBER:   2003:45445  LIFESCI
TITLE:              Amyloid-like Features of Polyglutamine
                    Aggregates and Their Assembly Kinetics
AUTHOR:             Chen, Songming; Berthelier, V.; Hamilton, J.B.; O'Nuallain,
                    B.; Wetzel, R.
CORPORATE SOURCE:   Graduate School of Medicine, University of Tennessee
                    Medical Center, 1924 Alcoa Highway, Knoxville, TN 37920,
                    USA
SOURCE:             Biochemistry (Washington) [Biochemistry (Wash.)], (20020611
     )              vol. 41, no. 23, pp. 7391-7399.
                    ISSN: 0006-2960.
DOCUMENT TYPE:      Journal
FILE SEGMENT:       N3
LANGUAGE:           English
SUMMARY LANGUAGE:   English
AB   The repeat length-dependent tendency of the
     polyglutamine sequences of certain proteins to form
     aggregates may underlie the cytotoxicity of these sequences in
     expanded CAG repeat diseases such as Huntington's disease. We report here
     a number of features of various polyglutamine (polyGln)
     aggregates and their assembly pathways that bear a resemblance to
     generally recognized defining features of amyloid fibrils. PolyGln
     aggregation kinetics displays concentration and length
     dependence and a lag phase that can be abbreviated by seeding. PolyGln
     aggregates exhibit classical beta -sheet-rich circular dichroism
     spectra consistent with an amyloid-like substructure. The fundamental
     structural unit of all the in vitro aggregates described here is
     a filament about 3 nm in width, resembling the protofibrillar
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intermediates in amyloid fibril assembly. We observed these filamentous structures either as isolated threads, as components of ribbonlike sheets, or, rarely, in amyloid-like twisted fibrils. All of the polyGln **aggregates** described here bind thioflavin T and shift its fluorescence spectrum. Although all polyGln **aggregates** tested bind the dye Congo red, only **aggregates** of a relatively long polyGln peptide exhibit Congo red birefringence, and this birefringence is only observed in a small portion of these **aggregates**. Remarkably, a monoclonal antibody with high selectivity for a generic amyloid fibril conformational epitope is capable of binding polyGln **aggregates**. Thus, polyGln **aggregates** exhibit most of the characteristic features of amyloid, but the twisted fibril structure with Congo red birefringence is not the predominant form in the polyGln repeat **length** range studied here. We also find that polyGln peptides exhibit an unusual freezing-dependent **aggregation** that appears to be caused by the freeze concentration of peptide and/or buffer components. This is of both fundamental and practical significance. PolyGln **aggregation** is revealed to be a highly specific process consistent with a significant degree of order in the molecular structure of the product. This ordered structure, or the assembly process leading to it, may be responsible for the cell-specific neuronal degeneration observed in Huntington's and other expanded CAG repeat diseases.

L41 ANSWER 2 OF 4 BIOTECHNO COPYRIGHT 2005 Elsevier Science B.V. on STN
DUPLICATE

ACCESSION NUMBER: 1999:29124713 BIOTECHNO
TITLE: Expanded **polyglutamine** domain proteins bind neurofilament and alter the neurofilament network
AUTHOR: Nagai Y.; Onodera O.; Chun J.; Strittmatter W.J.; Burke J.R.
CORPORATE SOURCE: J.R. Burke, Department of Medicine (Neurology), Deane Laboratory, Duke University Medical Center, Durham, NC 27710, United States.
E-mail: james.burke@duke.edu
SOURCE: Experimental Neurology, (1999), 155/2 (195-203), 50 reference(s)
CODEN: EXNEAC ISSN: 0014-4886
DOCUMENT TYPE: Journal; Article
COUNTRY: United States
LANGUAGE: English
SUMMARY LANGUAGE: English

AN 1999:29124713 BIOTECHNO
AB Eight inherited neurodegenerative diseases are caused by genes with expanded CAG repeats coding for **polyglutamine** domains in the disease- producing proteins. The mechanism by which this expanded **polyglutamine** domain causes neurodegenerative disease is unknown, but nuclear and cytoplasmic **polyglutamine** protein **aggregation** is a common feature. In transfected COS7 cells, expanded **polyglutamine** proteins **aggregate** and disrupt the vimentin intermediate **filament** network. Since neurons have an intermediate **filament** network composed of neurofilament (NF) and NF abnormalities occur in neurodegenerative diseases, we examined whether pathologic-**length polyglutamine** domain proteins also interact with NF. We expressed varying **lengths** **polyglutamine**-green fluorescent protein fusion proteins in a neuroblast cell line, TR1. Pathologic-**length** **polyglutamine**-GFP fusion proteins formed large cytoplasmic **aggregates** surrounded by neurofilament. Immunoisolation of pathologic-**length polyglutamine** proteins coisolated 68- kDa NF protein demonstrating molecular interaction. These observations suggest that **polyglutamine** interaction with NF is important in the pathogenesis of the **polyglutamine** repeat diseases.

L41 ANSWER 3 OF 4 BIOTECHNO COPYRIGHT 2005 Elsevier Science B.V. on STN
ACCESSION NUMBER: 1999:30038076 BIOTECHNO
TITLE: **Polyglutamine** domain proteins with expanded repeats bind neurofilament, altering the neurofilament network
AUTHOR: Nagai Y.; Onodera O.; Strittmatter W.J.; Burke J.R.
CORPORATE SOURCE: J.R. Burke, Department of Medicine, Duke University Medical Center, Durham, NC 27710, United States.
E-mail: james.burke@duke.edu
SOURCE: Annals of the New York Academy of Sciences, (1999), 893/- (192-202), 49 reference(s)
CODEN: ANYAA0 ISSN: 0077-8923
DOCUMENT TYPE: Journal; Conference Article
COUNTRY: United States
LANGUAGE: English
SUMMARY LANGUAGE: English
AN 1999:30038076 BIOTECHNO
AB Proteins with expanded **polyglutamine** (polyQ) repeats cause eight inherited neurodegenerative diseases. Nuclear and cytoplasmic polyQ protein is a common feature of these diseases, but its role in cell death remains debatable. Since the neuronal intermediate **filament** network is composed of neurofilament (NF) and NF abnormalities occur in neurodegenerative diseases, we examined whether pathologic **length** polyQ domain proteins interact with NF. We expressed polyQ-green fluorescent fusion proteins (GFP) in a neuroblast cell line, TR1. Pathologic-**length** polyQ-GFP fusion proteins form large cytoplasmic **aggregates** surrounded by neurofilament. Immunoisolation of pathologic **length** polyQ proteins co-isolated 68 kD NF protein demonstrating molecular interaction. These observations suggest that polyQ interaction with NF is important in the pathogenesis of the **polyglutamine** repeat diseases.

L41 ANSWER 4 OF 4 BIOTECHNO COPYRIGHT 2005 Elsevier Science B.V. on STN
ACCESSION NUMBER: 1997:27464435 BIOTECHNO
TITLE: Oligomerization of expanded-**polyglutamine** domain fluorescent fusion proteins in cultured mammalian cells
AUTHOR: Onodera O.; Burke J.R.; Miller S.E.; Hester S.; Tsuji S.; Roses A.D.; Strittmatter W.J.
CORPORATE SOURCE: W.J. Strittmatter, Department of Medicine (Neurology), Duke University Medical Center, Durham, NC 27710, United States.
E-mail: warren@neuro.duke.edu
SOURCE: Biochemical and Biophysical Research Communications, (1997), 238/2 (599-605), 29 reference(s)
CODEN: BBRCA0 ISSN: 0006-291X
DOCUMENT TYPE: Journal; Article
COUNTRY: United States
LANGUAGE: English
SUMMARY LANGUAGE: English
AN 1997:27464435 BIOTECHNO
AB Six inherited neurologic diseases, including Huntington's disease, result from the expansion of a CAG domain of the disease genes to produce a domain of more than 40 glutamines in the expressed protein. The mechanism by which expansion of this **polyglutamine** domain causes disease is unknown. Recent studies demonstrated oligomerization of **polyglutamine**-domain proteins in mammalian neurons. To study oligomerization of **polyglutamine** proteins and to identify heterologous protein interactions, varying **length** **polyglutamine**-green fluorescent protein fusion proteins were expressed in cultured COS-7 cells. The 19-and 35-glutamine fusion proteins (non-pathologic **length**) distributed diffusely

throughout the cytoplasm. In contrast, 56- and 80-glutamine fusion proteins (pathologic **length**) formed fibrillar arrays resembling those previously observed in neurons in Huntington's disease and in a transgenic mouse model. These **aggregates** were intranuclear and intracytoplasmic. Intracytoplasmic **aggregates** were surrounded by collapsed intermediate **filaments**. The intermediate **filament** protein vimentin co-immunoisolated with expanded **polyglutamine** fusion proteins. This cellular model will expedite investigations into oligomerization of **polyglutamine** proteins and their interactions with other proteins.